

**IMPREGNATED GLASS FIBER STRANDS
AND PRODUCTS INCLUDING THE SAME**

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ABSTRACT

The present invention provides an at least partially coated fiber strand comprising a plurality of fibers, the coating comprising an organic component and lamellar particles having a thermal conductivity of at least 1 Watt per meter K at a temperature of 300K.

10 The present invention also provides an at least partially coated fiber strand comprising a plurality of fibers, the coating comprising an organic component and non-hydratable, lamellar particles.

The present invention further provides an at least partially coated fiber strand comprising a plurality of fibers having a resin compatible coating composition on at least a portion of a surface of at least one of said fibers, the resin compatible coating composition comprising: (a) a plurality of discrete particles formed from materials selected from non-heat expandable organic materials, inorganic polymeric materials, non-heat expandable composite materials and mixtures thereof, the particles having an average particle size sufficient to allow strand wet out; (b) at least one lubricious 20 material different from said plurality of discrete particles; and (c) at least one film-forming material.

The present invention also provides an at least partially coated fiber strand comprising a plurality of glass fibers having a resin compatible coating composition on at least a portion of a surface of at least one of said glass fibers, the resin 25 compatible coating composition comprising: (a) a plurality of lamellar, inorganic particles having a Mohs' hardness value which does not exceed the Mohs' hardness value of said glass fibers; and (b) at least one polymeric material.

The present invention further provides an at least partially coated fiber strand comprising a plurality of glass fibers having a resin compatible coating composition 30 on at least a portion of a surface of at least one of said glass fibers, the resin compatible coating composition comprising: (a) a plurality of hollow, non-heat expandable organic particles; and (b) at least one lubricious material different from the at least one hollow organic particle.